Water Quality Parameters of Mosquito Breeding Sites

An Honors Thesis (HONR 499)

by

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Abstract

Mosquitoes are one of the most medically important species worldwide because of their ability to transmit diseases. Mosquitoes progress through four life stages: egg, larvae, pupa, and adult. Mosquito control techniques commonly target the adult stage. However, it would be more cost effective to target the larval and pupa life stages because they are more concentrated in bodies of water. Understanding the water quality parameters of mosquito breeding sites could help develop new mosquito control techniques. This study investigated the water quality parameters (dissolved oxygen, pH, temperature, lead and magnesium concentrations) of mosquito breeding sites in 2017 in Delaware County, Indiana. The study focuses on the difference between artificial and natural sites, differences between species, and how the parameters change throughout the season.

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